

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1(Currently amended). A non-reducing saccharide-forming enzyme, which forms a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolyzate, having the amino acid sequence of SEQ ID NO:1 or an amino acid sequence having at least 80% sequence identity to the amino acid sequence of SEQ ID NO:1, and which has an optimum temperature of over 40°C but below 60°C.

Claims 2-8 (Cancelled).

9(Currently amended). The enzyme of ~~claim 7~~ claim 13, wherein said microorganism is a member selected from the group consisting of Arthrobacter sp. S34, FERM BP-6450, and mutants thereof.

Claims 10-12 (Cancelled).

13(Currently amended). ~~The~~ A non-reducing saccharide-forming enzyme ~~of claim 1~~, which is obtainable from a

microorganism of the genus *Arthrobacter*, which has wherein said enzyme has the following physicochemical properties:

(1) Action

Forming a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolyzate having a degree of glucose polymerization of 3 or higher;

(2) Molecular weight

About 75,000 \pm 10,000 daltons on sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE);

(3) Isoelectric point (pI)

About 4.5 \pm 0.5 on isoelectrophoresis using ampholyte;

(4) Optimum temperature

About 50°C when incubated at pH 6.0 for 60 min;

(5) Optimum pH

About 6.0 when incubated at 50°C for 60 min;

(6) Thermal stability

Stable up to a temperature of about 55°C when incubated at pH 7.0 for 60 min.; and

(7) pH stability

Stable at pHs of about 5.0 to about 10.0 when incubated at 4°C for 24 hours.

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Reply to Office Action of February 9, 2004

Claims 14-58 (Cancelled).